

IDS - 07/03/2006

JUL 03 2006

PTO/SB/08A (07-05)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 6

Complete if Known

Application Number	10/763,545
Filing Date	January 23, 2004
First Named Inventor	William C. Olson
Art Unit	1648
Examiner Name	Peng, Bo
Attorney Docket Number	57906-BA

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
BP		US- 6,025,154	10-05-2004	Y. Li et al.	
		US- 6,265,184	07-24-2001	P.W. Gray et al.	
		US- 6,268,477	06-30-2002	P.W. Gray et al.	
		US- 6,448,375	09-10-2002	M. Samson et al.	
		US- 6,743,594	06-01-2004	Y. Li et al.	
		US- 6,797,811	09-28-2004	P.W. Gray et al.	
		US- 6,972,126	12-06-2005	G.P. Allaway et al.	
		US- 6,261,763	07-17-2001	G.P. Allaway et al.	
		US- 2002-0150888	10-17-2002	P.W. Gray et al.	
		US- 2004-0161739	08-19-2004	M. Samson et al.	
		US- 2004-0230037	11-18-2004	P.W. Gray et al.	
		US- 2004-0110127	06-10-2004	M. Samson et al.	
		US- 2005-0154193	07-14-2005	V. Roschke et al.	
		US- 2003-0100058	05-29-2003	V. Roschke et al.	
		US- 2003-0166024	09-04-2003	C. Rosen et al.	
		US- 2004-0151719	08-08-2004	Y. Li et al.	
		US- 2001-0000241	04-12-2001	Y. Li et al.	
		US- 2001-0046512	11-29-2001	V. Litwin et al.	
		US- 2006-0029932	02-09-2006	G.P. Allaway et al.	

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)			
BP		WO 95/16789	06-22-1995		
		WO 02/064612 A2	08-22-2002		
		WO 01/58915 A2	08-16-2001		
		WO 01/58916 A2	08-16-2001		
		WO 96/39437 A2	12-12-1996		
		WO 97/22698	06-26-1997		

Examiner Signature	/Bo Peng/	Date Considered	07/19/2006
--------------------	-----------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Applicants: William C. Olson and Paul J. Maddon
Serial No.: 10/763,545
Filed: January 23, 2004
Exhibit A

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet **2** of **6**

Complete if Known

Application Number	10/763,545
Filing Date	January 23, 2004
First Named Inventor	William C. Olson
Art Unit	1648
Examiner Name	Peng, Bo
Attorney Docket Number	57906-BA

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
BP		US- 2002-0045161	04-18-2002	G.P. Allaway et al.	
		US- 2006-0140977 A1	06-29-2006	G.P. Allaway et al.	
		US- 09/118,415	07-17-1998	V.M. Litwin et al.	
		US- 11/258,963	10-25-2005	G.P. Allaway et al.	
		US- 11/316,078	12-21-2005	W.C. Olson et al.	
		US- 11/400,497	04-07-2006	G.P. Allaway et al.	
		US- 08/475,515	06-07-1995	G.P. Allaway et al.	
		US- 08/663,171	06-14-1996	G.P. Allaway et al.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
BP		WO 97/44055	11-27-1997			
		WO 97/032019	09-04-1997			
		EP 96870021.1	03-01-1996			
		EP 96870102.9	08-06-1996			
		EP 1145721 A2	10-17-2001			
		EP 1146055 A2	10-17-2002			

Examiner
Signature

/Bo Peng/

Date
Considered

07/19/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

(Use as many sheets as necessary)

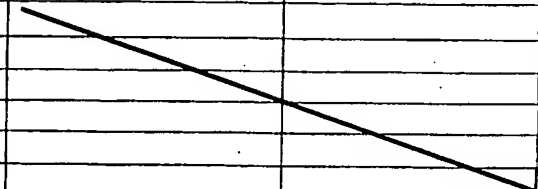

Sheet	3	of	6
-------	---	----	---

Application Number	10/763,545
Filing Date	January 23, 2004
First Named Inventor	William C. Olson
Art Unit	1648
Examiner Name	Peng, Bo
Attorney Docket Number	57906-BA

U. S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)	MM-DD-YYYY			
BP		EP 1146122 A2	10-17-2001			
		EP 1148126 A2	10-24-2001			
		EP 1148127 A2	10-24-2001			
		EP 1149582 A2	10-31-2001			
		EP 1199360 A2	04-24-2002			
		EP 1482042 A1	12-01-2004			

Examiner
Signature

/Bo Peng/

Date
Considered

07/19/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

(Use as many sheets as necessary)

Sheet	6
-------	---

of

16

Application Number

10/763,545

Filing Date

January 23, 2004

First Named Inventor

William C. Olson

Art Unit

1648

Examiner Name

Peng, Bo

Attorney Docket Number

57906-BA

[illegible]

Examiner
Signature

/Bo Peng/

Date
Considered

07/19/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 5

of

6

Complete if Known

Application Number	10/763,545
Filing Date	January 23, 2004
First Named Inventor	William C. Olson
Art Unit	1648
Examiner Name	Peng, Bo
Attorney Docket Number	57906-BA

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
BP		Dean, M. et al., (1996) "Genetic Restriction Of HIV-1 Infection And Progression To AIDS By A Deletion Allele Of The CKR5 Structural Gene", Science 273:1856-1862	
		He, J. et al., (1997) "CCR3 And CCR5 Are Co-Receptors For HIV-1 Infection Of Microglia", Nature 385:645-649	
		Konigs, C. et al., (2000) "Monoclonal Antibody Screening Of Phage-Displayed Random Peptide Library Reveals Mimotopes Of Chemokine Receptor CCR5: Implications For The	
		Tertiary Structure Of The Receptor And For An N-Terminal Binding Site For HIV-1 Gp120", Eur. J. Immunol. 30(4):1162-1171	
		Lee, B. et al., (1999) "Epitope Mapping Of CCR5 Reveals Multiple Conformational States And Distinct But Overlapping	
		Structures Involved In Chemokine Coreceptor Function", J. Biol. Chem. 274 (14):9617-9626	
		Mackay, C.R., (1996) "Chemokine Receptors And T Cell Chemotaxis", J. Exp. Med 184:799-802	
		Raport, C.J. et al., (1996) "Molecular Cloning And Functional Characterization Of A Novel Human CC Chemokine Receptor (CCR5)	
		For RANTES, MIP-1beta, And MIP-1alpha", J.Biol. Chem. 271(29):1761-17166	
↓		Samson, M. et al., (1996) "Molecular Cloning And Functional Expression Of A New Human CC-Chemokine Receptor Gene", Biochem. 35:3362-3367	

Examiner Signature	/Bo Peng/	Date Considered	07/19/2006
--------------------	-----------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

(Use as many sheets as necessary)

16

of

6

10/763.545

January 23, 2004

William C. Olson

1648

Peng, Bo

57906-BA

[illegible]

/Bo Peng/

Considered

07/19/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1. Applicant's unique citation designation number (optional). 2. Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

[illegible]

Applicants: William C. Olson et al.
Serial No.: 10/763,545
Filed: January 23, 2004

Form PTO-1449		U.S. Department of Commerce		Application Number	10/763,545
		Patent and Trademark Office		Filing Date	January 23, 2004
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)				First Named Inventor	William C. Olson et al.
				Art Unit	1648
				Examiner Name	
				Attorney Docket No.	2048/57906-BA/JPW/AJD

U.S. PATENT DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document

FOREIGN PATENT DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Foreign Patent Document Code ³ Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶
BP	1	WO/9745543 A	12-04-1997	Combadiere, Chrisophe et al.	
BP	2	WO/9747318 A	12-18-1997	Allaway, Graham P. et al.	

NON PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
BP	3	GHORPADE, A., XIA, M.Q., HYMAN, B.T., PERSODSKY, Y., NUKUNA, A., BOCK, P., CHE, M., LIMOGES, J., GENDELMAN, H.E. and MACKAY, C.R. (1998) Role of the beta-chemokine receptors CCR3 and CCR5 in human immunodeficiency virus type 1 infection of monocytes and microglia. J. Virol. 72: 3351-3361;	
BP	4	SCHOLS, D., PROOST, P., STRUYF, S., WUYTS, A., DE MEESTER, I., SCHARPE, S., VAN DAMME, J. and DE CLERCQ, E. (1999) CD26-processed RANTES(3-68), but not intact RANTES, has potent anti-HIV-1 activity. Antiviral Res. 39: 175-187; and	
BP	5	SIMMONS, G., CLAPHAM, P.R., PICARD, L., OFFORD, R.E., ROSENKILDE, M.M., SCHWARTZ, T.W., BUSIER R., WELLS, T.N., PROUDFOOT, A.E. (1997) Potent inhibition of HIV-1 infectivity in macrophages and lymphocytes by a novel CCR5 antagonist. Science 276: 276-279.	

EXAMINER SIGNATURE	/Bo Peng/	DATE CONSIDERED	07/20/2006
--------------------	-----------	-----------------	------------

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ² See Kinds of Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English Language Translation is attached.

Applicants: William C. Olson, et al.
 Serial No.: 10/763,545
 Filed: January 23, 2004
 Exhibit A

Form PTO-1449

U.S. Department of Commerce
Patent and Trademark OfficeAtty. Docket No.
57906-E
JPW/AJD/BWSLSerial No.
10/763,545

AUG 16 2004

INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)Applicant(s)
W. C. Olson and P. J. MaddonFiling Date
January 23, 2004

Art Unit

U.S. PATENT DOCUMENTS

Examiner Initials	Exh No.	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
BP		6 5 2 8 6 2 5	03/04/03	Wu et al.			
		2 0 0 3 / 0 0 2 3 0 4 4	01/30/03	Li et al.			
		2 0 0 2 / 0 0 4 8 7 8 6	04/25/02	Rosen et al.			
		2 0 0 2 / 0 0 6 1 8 3 4	05/23/02	Rosen et al.			
		2 0 0 2 / 0 0 7 6 7 4 5	06/20/02	Li et al.			

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
BP		9 8 1 8 8 2 6	05/07/98	PCT				
		9 6 4 1 0 2 0	12/19/96	PCT				
		9 7 2 6 0 0 9	07/24/97	PCT				
		9 7 3 7 0 0 5	10/27/97	PCT				
		9 7 4 7 3 1 9	01/07/98	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

BP		Allaway, G.P., K.L. Davis-Bruno, B.A. Beaudry, E.B. Garcia, E.L. Wong, A.M. Ryder, K.W. Hasel, M.C. Gauduin, R.A. Koup, J.S. McDougal and P.J. Maddon. 1995. Expression and characterization of CD4-IgG2, a novel heterotetramer that neutralizes primary HIV type 1 isolates. AIDS Res Hum Retroviruses 11: 533-539;
		Allaway, G.P., A.M. Ryder, G.A. Beaudry and P.J. Maddon. 1993. Synergistic inhibition of HIV-1 envelope-mediated cell fusion by CD4-based molecules in combination with antibodies to gp120 or gp41. AIDS Res. Hum. Retroviruses 9: 581-587;
		Amara, A., S.L. Gall, O. Schwartz, J. Salamero, M. Montes, P. Loetscher, M. Baggiolini, J.L. Virelizier and F. Arenzana-Seisdedos. 1997. HIV coreceptor downregulation as antiviral principle: SDF-1 α -dependent internalization of the chemokine receptor CXCR4 contributes to inhibition of HIV replication. J. Exp. Med. 186: 139-146;
		Berger, E.A. 1997. HIV entry and tropism: the chemokine receptor connection. AIDS 11 (Suppl A): S3-S16;
		Bieniasz, P.D., R.A. Fridell, I. Aramori, S.S.G. Ferguson, M.C. Caron and B.R. Cullen. 1997. HIV-1-induced cell fusion is mediated by multiple regions within both the viral envelope and the CCR5 co-receptor. EMBO J. 16: 2599-2609;
		Brelot, A., N. Heveker, O. Pleskoff, N. Sol and M. Alizon. 1997. Role of the first and third extracellular domains of CXCR4 in human immunodeficiency virus coreceptor activity. J. Virol. 71: 4744-4751;

EXAMINER

/Bo Peng/

DATE CONSIDERED

07/20/2006

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office			Atty. Docket No. 57906-E JPW/AJD/BWSL		Serial No. 10/763,545							
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)					Applicant(s) W. C. Olson and P. J. Maddon									
					Filing Date January 23, 2004		Art Unit							
U.S. PATENT DOCUMENTS														
Examiner Initials	Exh No.	Document Number			Date	Name	Class	Subclass	Filing Date If Appropriate					
	BP	2002/0099176			07/25/02	Li et al.								
		2002/0106742			08/08/02	Samson et al.								
		2002/0110805			08/15/02	Samson et al.								
		2002/0110870			08/15/02	Samson et al.								
		2002/0132269			09/19/02	Li et al.								
FOREIGN PATENT DOCUMENTS														
		Document Number			Date	Country	Class	Subclass	Translation Yes No					
	BP	9	8	5	6	4	2	1	12/17/98	PCT				
		0	0	3	5	4	0	9	06/22/00	PCT				
		0	1	6	4	7	1	0	09/07/01	PCT				
		0	2	2	2	0	7	7	03/21/02	PCT				
		02	0	6	8	6	0	8	09/06/02	PCT				
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)														
BP	Chan, D.C. and P.S. Kim. 1998. HIV entry and its inhibition. Cell 93: 681-684;													
	Connor, R.I., K.E. Sheridan, D. Ceradini, S. Choe and N.R. Landau. 1997. Change in co-receptor use correlates with disease progression in HIV-1 infected individuals. J. Exp. Med. 185: 621-628;													
	Crump, M.P., J.H. Gong, P. Loetscher, K. Rajarathnam, A. Amara, F. Arenzana-Seisdedos, J.L. Virelizier, M. Baggiolini, B.D. Sykes and I. Clark-Lewis. 1997. Solution structure and basis for functional activity of stromal-cell derived factor-1; disassociation of CXCR4 activation from binding and inhibition of HIV-1. EMBO J. 16: 6996-7007;													
	Dalgleish, A.G., P.C.L. Beverly, P.R. Clapham, D.H. Crawford, M.F. Greaves and R.A. Weiss. 1984. The CD4 (T4) antigen is an essential component of the receptor for the AIDS retrovirus. Nature 312: 763-766;													
	Donzella, G.A., D. Schols, S.W. Lin, J.A. Este, K.A. Nagashima, P.J. Maddon, G.P. Allaway, T.P. Sakmar, G. Henson, E.D. Clercq and J.P. Moore. 1998. AMD3100, a small molecule inhibitor of HIV-1 entry via the CXCR4 co-receptor. Nat. Med. 4: 72-77;													
	Doranz, B.J., K. Grovit-Ferbas, M.P. Sharron, S.H. Mao, M.B. Goetz, E.S. Daar, R.W. Doms and W.A. O'Brien. 1997. A small molecule inhibitor directed against the chemokine receptor CXCR4 prevents its use as an HIV-1 co-receptor. J. Exp. Med. 186: 1395-1400;													
EXAMINER /Bo Peng/					DATE CONSIDERED 07/20/2006									
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.														

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		Atty. Docket No. 57906-E JPW/AJD/BWSL		Serial No. 10/763,545	
		Applicant(s) W. C. Olson and P. J. Maddon			
		Filing Date January 23, 2004		Art Unit	

U.S. PATENT DOCUMENTS							
Examiner Initials	Exh No.	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
BP 		09 5 9 4 9 8 3		Olson et al.			06/15/00
		2002/0146415	10/10/02	Olson et al.			
		10 0 8 1 1 2 8		Olson et al.			02/22/02
		2003/0044411	03/06/03	Olson et al.			
		2003/0228306	12/11/03	Olson et al.			

FOREIGN PATENT DOCUMENTS								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
BP 		02 0 8 3 1 7 2	10/24/02	PCT				
		03 0 7 2 7 6 6	09/04/03	PCT				
	3	9 7 4 9 4 2 4	12/31/97	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
BP 	<p>Doranz, B.J., Z.-H. Lu, J. Rucker, T.-Y. Zhang, M. Sharron, Y.-H. Cen, Z.-X. Wang, H.-H. Guo, J.-G. Du, M.A. Accavitti, R.W. Doms and S.C. Peiper. 1997. Two distinct CCR5 domains can mediate co-receptor usage by human immunodeficiency virus type 1. J. Virol. 71: 6305-6314;</p> <p>Dragic, T., V. Litwin, G.P. Allaway, S.R. Martin, Y. Huanh, K.A. Nagashima, C. Cayan, P.J. Maddon, R.A. Koup, J.P. Moore and W.A. Paxton. 1996. HIV-1 entry into CD4+ cells is mediated by the chemokine receptor CC-CKR-5. Nature 381: 667-673;</p> <p>Hill, C.M., D. Kwon, M. Jones, C.B. Davis, S. Marmon, B.L. Daugherty, J.A. DeMartino, M.S. Springer, D. Unutmaz and D.R. Littman. 1998. The amino terminus of human CCR5 is required for its function as a receptor for diverse human and simian immunodeficiency virus envelope glycoproteins. Virology 248: 357-371;</p> <p>Kwong, P.D., R. Wyatt, J. Robinson, R.W. Sweet, J. Sodroski and W.A. Hendrickson. 1998. Structure of an HIV gp120 envelope glycoprotein in complex with the CD4 receptor and a neutralizing human antibody. Nature 393: 648-659;</p> <p>Laal, S., S. Burda, M.K. Gorny, S. Karwowska, A. Buchbinder and S. Zolla-Pazner. 1994. Synergistic neutralization of human immunodeficiency virus type 1 by combinations of human monoclonal antibodies. J. Virol. 68: 4001-4008;</p>

EXAMINER /Bo Peng/	DATE CONSIDERED 07/20/2006
------------------------------	--------------------------------------

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609: Draw line through citation if not in conformance and-not considered. Include copy of this form with next communication to applicant.

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office			Atty. Docket No. 57906-E JPW/AJD/BWSL		Serial No. 10/763,545							
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)					Applicant(s) W. C. Olson and P. J. Maddon									
					Filing Date January 23, 2004		Art Unit							
U.S. PATENT DOCUMENTS														
Examiner Initials	Exh No.	Document Number							Date	Name	Class	Subclass	Filing Date If Appropriate	
BP		60	2	8	2	3	8	0		Olson et al.				04/06/01
↓		60	3	5	8	8	8	6		Olson et al.				02/22/02
↓		6	1	0	7	0	1	9	08/22/00	Allaway et al.				
↓		6	3	4	4	5	4	5	02/05/02	Allaway et al.				
↓		6	5	4	8	6	3	6	04/15/03	Dragic et al.				
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)														
BP		Li, A., H. Katinger, M.R. Posner, L. Cavacini, S. Zolla-Pazner, M.K. Gorny, J. Sodroski, T.C. Chou, T.W. Baba and R.M. Ruprecht. 1998. Synergistic neutralization of simian-human immunodeficiency virus SHIV-vpu+ by triple and quadruple combinations of human monoclonal antibodies and high-titer antihuman immunodeficiency virus type 1 immunoglobulins. <i>J. Virol.</i> 72: 3235-3240;												
↓		Mack, M., B. Luckow, P.J. Nelson, J. Cihak, G. Simmons, P.R. Clapham, N. Signoret, M. Marsh, M. Stangassinger, F. Borlat, T.N.C. Wells, D. Schlondorff and A.E.I. Proudfoot. 1998. Aminooxypentane-RANTES induces CCR5 internalization but inhibits recycling: a novel inhibitory mechanisms of HIV infectivity. <i>J. Exp. Med.</i> 187: 1215-1224;												
↓		McKnight, A., D. Wilkinson, G. Simmons, S. Talbot, L. Picard, M. Ahuja, M. Marsh, J.A. Hoxie and P.R. Clapham. 1997. Inhibition of human immunodeficiency virus fusion by a monoclonal antibody to a coreceptor (CXCR3) is both cell type and virus strain dependent. <i>J. Virol.</i> 71: 1692-1696;												
↓		Strizki, J.M., J. Davis-Turner, R.G. Collman, J. Hoxie and F. Gonzalez-Scarano. 1997. A monoclonal antibody (12G5) directed against CXCR4 inhibits infection with the dual-tropic human immunodeficiency virus type 1 isolate HIV-1 89.6 but not the T-tropic isolate HIV-1 HxB. <i>J. Virol.</i> 71: 5678-5683;												
↓		Trkola, A., T. Dragic, J. Arthos, J. Binley, W.C. Olson, G.P. Allaway, C. Cheng-Mayer, J. Robinson, P.J. Maddon and J.P. Moore. 1996. CD4-dependent, antibody sensitive interactions between HIV-1 and its co-receptor CCR-5. <i>Nature</i> 384: 184-187;												
↓		Vijh-Warrier, S., A. Pinter, W.J. Honnen and S.A. Tilley. 1996. Synergistic neutralization of human immunodeficiency virus type 1 by a chimpanzee monoclonal antibody against the V2 domain of gp120 in combination with monoclonal antibodies against the V3 loop and the CD4-binding site. <i>J. Virol.</i> 70: 4466-4473;												
↓		Wu, L., G. LaRosa, N. Kassam, C.J. Gordon, H. Heath, N. Ruffing, H. Chen, J. Humblas, M. Samson, M. Parmentier, J.P. Moore and C.R. Mackay. 1997. Interaction of chemokine receptor CCR5 with its ligands: multiple domains for HIV-1 gp120 binding and a single domain for chemokine binding. <i>J. Exp. Med.</i> 186: 1373-1381;												
EXAMINER									DATE CONSIDERED					
/Bo Peng/									07/20/2006					
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.														

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 57906-E JPW/AJD/BWSL		Serial No. 10/763,545						
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)				Applicant(s) W. C. Olson and P. J. Maddon								
				Filing Date January 23, 2004		Art Unit						
U.S. PATENT DOCUMENTS												
Examiner Initials	Exh No.	Document Number						Date	Name	Class	Subclass	Filing Date If Appropriate
BP ↓		Pending claims in 09/888,938							Allaway et al.			06/25/01
		Allowed claims in 10/323,314							Dragic et al.			12/19/02
		08	6	2	7	6	8	4	Allaway et al.			04/02/96
		60	0	1	4	5	3	2	Allaway et al.			04/02/96
		08	6	6	3	6	1	6	Allaway et al.			06/14/96
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)												
BP ↓		Ylisastigui, L., J.J. Vizzavona, E. Drakopoulou, P. Paindavoine, C.F. Calvo, M. Parmentier, J.C. Gluckman, C. Vita and A. Benjouad. 1998. Synthetic full length and truncated RANTES inhibit HIV-1 infection of primary macrophages. AIDS 12: 977-984;										
		Tilley, S. A., W.J. Honnen, S. Warriar, M.E. Racho, T.C. Chou, M. Girard, E. Muchmore, M. Hilgartner, D.D. Ho, M.S.C. Fung and A. Pinter. 1991. Potent neutralization of HIV-1 by human and chimpanzee monoclonal antibodies directed against three distinct epitope clusters of gp120. Sixieme Colloque Des Cent Gardes, pp. 211-216;										
		Tilley, S.A., W.J. Honnen, M.E. Racho, T.C. Chou and A. Pinter. 1992. Synergistic neutralization of HIV-1 by human monoclonal antibodies against the V3 loop and the CD4-binding site of gp120. AIDS Res. Hum. Retroviruses 80: 461-467;										
		Choe, H., M. Farzan, Y. Sun, N. Sullivan, B. Rollins, P.D. Ponath, L. Wu, C.R. Mackay, G. LaRosa, W. Newman, N. Gerard, C. Gerard and J. Sodroski. 1996. The beta-chemokine receptors CCR3 and CCR5 facilitate infection by primary HIV-1 isolates. Cell 85: 1135-1148;										
		Doranz, B.J., J. Rucker, Y. Yi, R. Smyth, M. Samson, S.C. Peiper, M. Parmentier, R.G. Collman and R.W. Doms. 1996. A dual-tropic primary HIV-1 Isolate that uses fusin and beta-chemokine receptors CKR-5, CKR-3, and CKR-2b as fusion cofactors. Cell 85: 1149-1158;										
		Deng, H., R. Liu, W. Ellmeier, S. Choe, D. Unutmaz, M. Burkhardt, P.D. Marzio, S. Marmon, R.E. Sutton, C.M. Hill, C.B. Davis, S.C. Peiper, T.J. Schall, D.R. Littman and N.R. Landau. 1996. Identification of a major co-receptor for primary isolates of HIV-1. Nature 381: 661-666;										
		Feng, Y., C.C. Broder, P.E. Kennedy and E.A. Berger. 1996. HIV-1 entry cofactor: functional cDNA cloning of a seven-transmembrane, G protein-coupled receptor. Science 272: 872-877;										
		Fradd, F. and M.E. Mary. 1989. AIDS Vaccines: An Investor's Guide by Shearman Lehman Hutton. Page 10 (Fig. 2);										
EXAMINER		/Bo Peng/						DATE CONSIDERED				
								07/20/2006				
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.												

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office			Atty. Docket No. 57906-E JPW/AJD/BWSL		Serial No. 10/763,545							
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)					Applicant(s) W. C. Olson and P. J. Maddon									
					Filing Date January 23, 2004		Art Unit							
U.S. PATENT DOCUMENTS														
Examiner Initials	Exh No.	Document Number							Date	Name	Class	Subclass	Filing Date If Appropriate	
BP ↓ ↓ ↓ ↓ ↓		60	0	1	9	7	1	5		Allaway et al.				06/14/96
		08	6	7	3	6	8	2		Allaway et al.				06/25/96
		08	6	6	5	0	9	0		Allaway et al.				06/14/96
		60	0	1	9	9	4	1		Allaway et al.				06/14/96
		08	8	7	4	5	7	0		Allaway et al.				06/13/97
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)														
BP ↓ ↓ ↓ ↓ ↓ ↓ ↓		De Rossi, A., M. Pasti, F. Mummano, M. Panozzo, M. Dettin, C. Di Bello and L. Chieco-Bianchi. 1995. Synthetic peptides from the principle neutralizing domain of human immunodeficiency virus type 1 (HIV-1) enhance HIV-1 infection through a CD4-dependent mechanism. <i>Virology</i> 184: 187-196;												
		Co, M.S., M. Deschamps, R.J. Whitley and C. Queen. 1991. Humanized antibodies for antiviral therapy. <i>Proc. Natl. Acad. Sci. U.S.A.</i> 88: 2869-2873;												
		Trkola, A., T.J. Ketas, K.A. Nagashima, L. Zhao, T. Cilliers, L. Morris, J.P. Moore, P.J. Maddon and W.C. Olson. 2001. Potent, broad-spectrum inhibition of human immunodeficiency virus type 1 by the CCR5 monoclonal antibody PRO 140. <i>J. Virol.</i> 75: 579-588;												
		Olson, W.C., G.E. Rabut, K.A. Nagashima, D.N. Tran, D.J. Anselma, S.P. Monard, J.P. Segal, D.A. Thompson, F. Kajumo, Y. Guo, J.P. Moore, P.J. Maddon and T. Dragic. 1999. Differential inhibition of human immunodeficiency virus type 1 fusion, gp120 binding, and CC-chemokine activity by monoclonal antibodies to CCR5. <i>J. Virol.</i> 73: 4145-4155;												
		Parren, P.W., P.A. Marx, A.J. Hessel, A. Luckay, J. Harouse, C. Cheng-Mayer, J.P. Moore and D.R. Burton. 2001. Antibody protects macaques against vaginal challenge with a pathogenic R5 simian/human immunodeficiency virus at serum levels giving complete neutralization in vitro. <i>J. Virol.</i> 75: 8340-8347;												
		Lehner, T., C. Doyle, Y. Wang, K. Babaahmady, T. Whittall, L. Tao, L. Bergmeier and C. Kelly. 2001. Immunogenicity of the extracellular domains of C-C chemokine receptor 5 and the in vitro effects on simian immunodeficiency virus or HIV infectivity. <i>J. Immunol.</i> 166: 7446-7455;												
		Wu, L., W.A. Paxton, N. Kassam, N. Ruffing, J.B. Rottman, N. Sullivan, H. Choe, J. Sodroski, W. Newman, R.A. Koup and C.R. Mackay. 1997. CCR5 levels and expression pattern correlate with infectability by macrophage-tropic HIV-1, <i>in vitro</i> . <i>J. Exp. Med.</i> 185: 1681-1691; and												
↓		Chen Z., P. Zhou, D.D. Ho, N.R. Landau and P.A. Marx. 1997. Genetically divergent strains of simian immunodeficiency virus use CCR5 as a coreceptor for entry. <i>J. Virol.</i> 71: 2705-2714.												
EXAMINER /Bo Peng/					DATE CONSIDERED 07/20/2006									
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.														

Form PTO-1449

U.S. Department of Commerce
Patent and Trademark OfficeAtty. Docket No.
57906-E
JPW/AJD/BWSLSerial No.
10/763,545INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)Applicant(s)
W. C. Olson and P. J. MaddonFiling Date
January 23, 2004

Art Unit

U.S. PATENT DOCUMENTS

Examiner Initials	Exh No.	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
BP		0 8 8 7 4 6 1 8		Allaway et al.			06/13/97
		Pending claims in 09/724,105		Allaway et al.			11/28/00
		Pending claims in 09/852,238		Allaway et al.			05/09/01
		0 9 2 1 2 7 9 3		Olson et al.			12/16/98
		60 1 1 2 5 3 2		Olson et al.			12/16/98
		0 9 4 6 4 9 0 2		Olson et al.			12/16/99
		0 9 6 6 3 2 1 9		Olson et al.			09/15/00
		60 2 6 6 7 3 8		Olson et al.			02/06/01
		2 0 0 2 / 0 1 4 6 4 1 5	10/10/02	Olson et al.			
		60 2 8 2 3 8 0		Olson et al.			04/06/01
		2 0 0 2 / 0 1 0 6 3 7 4	08/08/02	Olson et al.			
		10 0 8 1 1 2 8		Olson et al.			02/22/02
		60 3 5 8 8 8 6		Olson et al.			02/22/02
		2 0 0 3 / 0 0 4 4 4 1 1	03/06/03	Olson et al.			
		2 0 0 3 / 0 0 9 2 6 3 2	05/15/03	Dragic et al.			
		2 0 0 3 / 0 2 2 8 3 0 6	12/11/03	Olson et al.			
		10 7 6 3 5 4 5		Olson et al.			01/23/04
		Pending claims in 09/460,216		Allaway et al.			12/13/99
BP	1	5 9 9 4 5 1 5	11/30/99	Hoxie			
BP	2	6 7 5 9 5 1 9	07/06/04	Li et al.			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

BP		Rudikoff, S. Giusti, A. M., Cook, W. D., Scharff M. D., 1982. Single amino acid substitution altering antigen-binding specificity. Proc. Natl. Acad. Sci. 79: 1979-1983

EXAMINER

/Bo Peng/

DATE CONSIDERED

07/20/2006

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.